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# STATE COLLEGE OF WASHINGTON AGRICULTURAL EXPERIMENT STATION <br> Pullman, Washington 

Division of Farm Management and
Agricultural Economics


# Rural Population Trends in Washington 

by

Paul H. Landis<br>Rural Sociology Series in Population, No. 1

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## PART II

## COMPOSITION OF POPULATION

## Introduction

In dealing with the composition of a population one must go a step beyond a count of heads. He must consider population elements by the yardsticks of age, sex, race, nationality, and place of birth.

Age groups are a rough index of quality in that they show roughly the man power and reproductive power of a state. They also indicate in part a state's burden in caring for the dependent young and the aged.

Sex ratio bears on marriage rate, birth rate, and where extremely distorted, on psychological traits.

Race and nationality may explain cultural and psychological traits, institutional or economic peculiarities, differences in birth rate or standard of living. Place of birth is a rough index of mobility. Race is important as it bears on intra-group conflict and cultural maladjustment.

## THE SEX RATIO

## Per Cent of Population Male and Female (Fig. 13)

Washington always has had a preponderance of males in her population. In 1890, 62 per cent of the population was male and only 38 per cent female.

There has been a uniform decline in the relative number of males in the population with each decade. By 1930, 52.9 per cent of the population was male and 47.1 was female.

## Males Per 100 Females by Counties, 1930 (Fig. 14)

Seven counties have more than 130 males per 100 females. They are Pend Oreille, Klickitat, Skamania, Wahkiakum, Mason, Jefferson, and Clallam. The most preponderately male county in the state is Jefferson, with 148.8 per 100 females, probably because of lumbering. The most even distribution of the sexes is found in Spokane County, where there are 104.7 males for each 100 females.

Generally speaking, the more rural areas have a higher proportion of males, whereas the more urbanized areas have a more even distribution of the sexes. This phenomena is characteristic of the nation, although more exaggerated in the western states. Rural counties in this state with considerable lumbering and mining have a high male sex ratio.

WASHINGTON'S POPULATION PREDOMINATELY MALE


Fig. 13. Per cent distribution by sex of Washington population, 1890-1930.


Fig. 14. Males per 100 females by counties as of 1930.

## Trend in Age Groups, 1890-1930 (Fig. 15)

This chart presents a number of very significant facts with regard to age groups in Washington's population, some of which indicate probable future population trends in the state.

First of all there has been a marked drop in the group under five years of age since 1920. If the trend toward a lower birth


Fig. 15. Trend in age groups in Washington, 1890-1930.
rate continues, this drop will be even more marked by 1940. One can hardly expect a decreased death rate to compensate fully for the declining birth rate. The trend line for the group above 60 , and also for the group above 65, has moved upward markedly since 1920. In fact, there has been a constant increase of those in the older age groups since 1890 . The trend has been rapidly upward since 1900 . This will mean an increasing death rate and an increasing pension burden. ${ }^{1}$

One of the most important groups in the population from the standpoint of productive energy is the group from 20 to 39 years, inclusive. This group increased at a very rapid rate between 1900 and 1910, but since 1910 has increased comparatively little. The group from five to 19 and the group from 40 to 59 showed a rapid rate of increase up to 1930 .

It becomes obvious that population increase in the state must depend primarily upon migration from other states unless the age group under five years of age can be built up by an increased birth rate.

[^1]
## Age-Sex Characteristics of Urban and Rural Populations ${ }^{1}$ (Fig. 16)

A normal population group makes a symmetrical pyramid which gradually slopes from a broad base to the apex. The base of the pyramid represents the younger age group. The apex of the pyramid represents the aged. The left side of the pyramid represents male population; the right, female.

The accompanying chart, Fig, 16, gives a series of pyramids for various population units. First of all, note that the population pyramid for the total United States population is the most normal. It diverges from normal primarily for the age group under five years. Because of a decline in the national birthrate, this group is smaller than the age group next above.

The total population of Washington represents even more of an abnormality in the proportion of children under five. The Washington pyramid, however, seems to have an abnormally large number in the $35-44$ age group, and also in the $45-54$ age group. This is especially true for males.

The graph picturing urban populations tends to reach its highest point in the middle section which represents the number of people between 15 and 45 years of age. It may be noted that this is true for the United States, but even more true of the urban population in the State of Washington. Large cities have noticeably large numbers of people in the productive years of life, 25-45. The figure for Seattle at the lower left shows an extremely large proportion of people in this age group. Compare Seattle, an industrial and commercial center, with Grant County, which is one of the most rural counties in the state. Note that Grant County has an abnormally large number in the younger age groups as compared to the city, and that it is relatively low in the proportion of people in the productive years of life, that is, 25-45 years. These differences in population are due to migration. The national tendency is for a considerable proportion of youths, upon reaching the productive years of life, to leave the rural communities for urban vocations. Washington data illustrate the effect of this type of migration. Girls drift cityward even more than boys, because urban vocations offer more opportunities for girls than do rural vocations. Consequently, the rural population tends to be greater on the male side, whereas the urban pyramid shows a fairly even distribution of the sexes.

The pyramid for Seattle, probably because of the shipping industry, bulges a little on the male side.

[^2]
## RURAL POPULATION MALE; <br> URBAN COMPOSED OF ADULTS



U.S. URBAN POPULATION

 GRANT COUNTY, WASH.

Fig. 16. Age-sex characteristics of urban and rural populations, Washington and United States, 1930.

FARM POPULATION HAS BURDEN OF EDUCATING AND REARING CHILDREN

MALES


WASH. RURAL POPULATION

MALES FEMALES

| 75 | OR OVER |  |
| :--- | :--- | :--- |
| 65 | TO | 74 |
| 55 | TO | 64 |
| 45 | TO | 54 |
| 35 | TO | 44 |
| 25 | TO | 34 |
| 15 | TO | 24 |
| 5 | TO | 14 |
| UNDER | 5 |  |

US. RURAL POPULATION


WASH. RURAL NON-FARM POPULATION

| 75 | OR OVER |  |
| :--- | :---: | :---: |
| 65 | TO | 74 |
| 55 | TO | 64 |
| 45 | TO | 54 |
| 35 | TO | 44 |
| 25 | TO | 34 |
| 15 | TO | 24 |
| 5 | TO | 14 |
| UNDER | 5 |  |


U.S. RURAL NON-FARM POPULATION


Fig. 17. Age sex distribution of rural farm and rural non-farm populations, Washington and United States, 1930.

## Age-Sex Distributions for Rural Farm and Rural Non-Farm Populations (Fig. 17)

Rural farm populations in America tend to show an abnormally large group in the younger ages of life. This tendency is shown in the pyramid for the United States rural population. Washington rural population shows a similar tendency, although not so extreme. The most unique characteristics of the population pyramid for Washington's rural population is the disproportionately large number of males 35-65 years of age.

With regard to rural non-farm population, which constitutes people living in rural areas who are not actually engaged in farming, the United States pyramid is the most normal of the pyramids presented. Each group decreases as one rises in the age scale, leaving a fairly symmetrical pyramid with even stair-steps going from top to bottom.

The Washington rural non-farm population has an abnormally small proportion in the under five age group. It is heavily weighted on the male side for all ages above 25. The rural farm population is shown in the third series. The United States data show a large number of children under 15 years of age, and a comparatively small group in the productive years of life, $25-45$. Washington rural farm population has an extremely small number in the age groups under five and $25-34$, and is heavily weighted with males in the older ages of life, that is, of those above 55 .

Age-Sex Distribution for Sections Within the State, 1930 (Fig. 18)
Each county within the state has a slightly different profile. ${ }^{1}$ When data on age and sex distribution are arranged in pyramid form, however, the entire state can be fairly well represented by four rather distinct types of population pyramids.

The great rural areas lying beyond the immediate influence of metropolitan districts are typified by Grant County. These areas are designated on the map. The pyramid for Grant County appears in the center of the map. It is heavily weighted at the base, indicating a rather large number of those in the young ages of life. It is drawn in at the center indicating a relatively small number in the productive ages. It is heavily weighted on the male side, indicating a disproportionate sex ratio.

The urban counties present a decided contrast. A pyramid for King County is shown at the top of the map. This pyramid, representative of King, Pierce, and Spokane Counties, is cut off at the bottom, indicating a small number of children, and bulged in the center, indicating a high proportion of people in the productive and energetic years of life.

[^3]
## MALES AND CHILDREN PREDOMINATE IN RURAL COUNTIES; MIDDLE AGED IN URBAN COUNTIES; AGED IN ISLAND COUNTIES



Fig. 18. Age-sex distribution for sections within the state, 1930.

The counties in the extreme western part of the state are typified by Grays Harbor County, which shows a high proportion of males for all age groups, but an especially high proportion for the middle age groups.

The two island counties, Island and San Juan, are typified by the pyramid for San Juan, which shows a very irregular profile, probably because of the small numbers represented. The most distinctive characteristic is the high proportion of old people in these counties. The sex ratio is also very unbalanced, males predominating. These two counties have a comparatively small proportion of those in the more productive years of life, but have a disproportionate number of those in the 5-14 year age group.

## RACIAL GROUPS

## Trend in Race Groups (Fig. 19)

Washington's population is predominately white; in fact, 1,521,099 or 97.3 per cent of the population is of the white race.

Other principal groups represented in the population are the Japanese, American Indian, Negro, and Chinese. The relative increase of each of these groups since 1890 is presented in Figure 19.


Fig. 19. Trend in namber of persons of non-white races, 1890-1930.
The number of Japanese in the state increased rapidly and consistently between 1890 and 1920, but there has been little increase during the decade 1920 to 1930. In 1930 there was a total of 17,837 in this state.

The number of American Indians has remained almost constant throughout the entire period. In 1930 there were 11,253 Indians in the state.

Negroes increased by almost 4000 between 1890 and 1910, but have increased very little since 1910. In 1930 there were 6,840 Negroes in the state.

Chinese reached their maximum number, 3,629, in 1900. In 1920 there were 2,363 and in 1930, 2,195.

## MOST RACIAL GROUPS CENTER IN URBANIZED COUNTIES



Fig. 20. Distribution of racial groups by counties as of 1930.

Distribution of Racial Groups by Counties, 1930 (Fig. 20)
The State of Washington has a comparatively small population of non-white races. Their distribution by counties is shown in Figure 20. Each dot represents 50 persons of each racial group as shown in the key. The Indians are located chiefly in Stevens, Ferry, Okanogan, Whatcom, Skagit, Snohomish, Chelan, Yakima, and Grays Harbor Counties.

The Japanese are located almost entirely in counties with large urban centers: King, Pierce, Spokane, Yakima, Snohomish, and Kitsap Counties. King County had 11,895 in 1930, Pierce, 2,661 . The remainder were distributed largely in Yakima and Spokane Counties.

Negroes also congregate in the urban communities, King County leading with 3,482 , and Pierce following with 900 . Next in rank were Yakima, Spokane, and Snohomish Counties.

Chinese likewise are located almost entirely in King and Pierce Counties, probably in the cities of Seattle and Tacoma, although there were 150 in Walla Walla in 1930.

WASHINGTON LOW ON PER CENT OF FOREIGN BORN
WASHINGTON


UNITED STATES

$1.6 \%$


NATIVE WHITE
OF NATIVE PARENTAGE OF FOREIGN OR MIXED PARENTAGE FOREIGN BORN WHITE OTHER RACES NEGRO

Fig. 21. Per cent foreign born in United States and Washington, 1930.


Fig. 22. Trends in per cent native white and foreign born by place of residence, 1890-1930.

## NATIVITY

## United States and Washington Compared as to Nativity of Population, 1930 (Fig. 21)

These data indicate that Washington has a higher percentage of native white population than the nation, but that a higher per cent of the native white are of foreign or mixed parentage than in the nation. The state has a higher per cent of foreign born also, 15.6 per cent as compared to 10.9 per cent for the nation. The nation's population is 9.7 per cent Negro, whereas Washington has less than one per cent Negro. Washington has a higher percentage of those of other races than the nation--2.3 per cent as compared to 1.6 per cent.

## Trends in Per Cent Native and Foreign Born by Place of Residence, 1890-1930. (Fig. 22)

The population of the state in 1890 was approximately 75 per cent native white and 25 per cent foreign born white. In 1930 native population had increased to more than 80 per cent with less than 20 per cent foreign born.

More than half the foreign born population in 1890 lived in rural areas, whereas in 1930 the greater proportion of the foreign born population lived in urban communities.

The percentage of native white rural is decreasing while the same group is increasing in the urban population. This probably reflects the movement of rural youth of native white parentage to urban centers.

Distribution by Place of Residence of Nativity Groups, 1930. (Fig. 23)
The total population of the state in 1930 was 57.4 per cent native white of native percentage, 26.5 per cent native white of foreign or mixed parentage, and 16.1 per cent foreign born white.

A comparison of rural and urban population with regard to the distribution of these three groups, indicates that 60.4 per cent of the rural population was native white of native parentage, whereas only 55.2 per cent of the urban population was native white of native parentage. The rural population had only 14.5 per cent foreign born, whereas the urban had 17.2 per cent. The rural and urban had 25.1 per cent and 27.6 per cent, respectively, of native white of foreign or mixed parentage.

The smallest diagrams indicate the relative proportion of the three groups in the farm and non-farm population. The greatest difference is found in the native white of foreign or mixed parentage. The farm population had 27 per cent in this classification, the rural non-farm population 23.6 per cent.

URBAN COMMUNITIES HAVE MORE FOREIGN BORN
TOTAL POPULATION


Fig. 23. Distribution by place of residence of nativity groups.

EASTERN AND MOUNTAIN AREAS HA


Fig. 10. Growth and decline of populatio (Comparable data are not available for starred precinc include counties increasing or decrea

S HAVE MANY DECLINING PRECINCTS

opulation in rural precincts, 1920-1930.
princts for the two census periods. Stationary areas decreasing less than 10 per cent.)

WASHINGTON HIGH ON CANADIAN, SCANDINAVIAN, GERMAN AND ENGLISH IMMIGRANTS


Fig. 24. Per cent distribution of foreign born by nationality, Washington and United States, 1930.

Foreign Groups by Country of Origin, 1930. (Fig. 24)
Washington is above the United States in the per cent of residents who were born in Canada, Sweden, Norway, England, and Finland. It is below the United States in the per cent of residents from Germany, Italy, Russia, Ireland, Poland, and Austria. In the per cent of residents from the Netherlands and Greece there is little difference.

State of Birth of White Population, 1890-1930 (Fig. 25)
The percentage of Washington's population born in Washington has increased consistently since 1910, so that by 1930, 36.2 per cent of
all people living in Washington were born in the state. The population born in other states has correspondingly decreased, although in 1930, 45.9 per cent of all the population was born in other states.

The number of foreign born decreased from a peak of 22.4 per cent in 1910 to 16.3 per cent in 1930 .

These data indicate clearly that Washington has depended even during the last decade primarily upon immigrants from other states for population increase.

Factors leading to population increase in Washington are analyzed in greater detail in Figures 32 and 33.

## WASHINGTON BORN IN WASHINGTON INCREASE



## SUMMARY, PART II

Part two shows trends in the composition of Washington's population with regard to sex ratio. The tendency is to approach a balanced distribution of the sexes, although in 1930 there were 112 males to every 100 females in the state.

A study of these data by communities indicates that the more rural communities, especially those still engaged in lumbering, are the most preponderantly male, whereas the urban communities tend to approach a balanced sex ratio. This is, no doubt, due to the tendency of women to go to urban communities where vocational opportunities await them.

The age distribution of Washington's population is becoming unfavorable from the standpoint of a well-balanced productive future population. The number of children is rapidly declining, whereas the number of aged is rapidly increasing, suggesting an abnormally large pension burden for the state. This fact also suggests that the proportion of people in the productive ages of life will soon be decreasing. Many areas, if they have not already felt the effects of the declining child population, will feel them in the near future.

In the light of these facts, communities should avoid the overbuilding of institutions, especially elementary schools. For some time to come, the number in the upper school grades will perhaps increase, but even here the effect of the declining birth rate will be felt in another 10 or 15 years unless there is a marked increase in the proportion of the young people attending high school and college.

The state has seen a relative decline for some years in the ratio of population in the most productive years of life, that is, the years from 30 to 44 .

There seems to be no danger of a critical race problem developing in the state. The population is predominately white. While the state ranks ninth among the states in the number of Indians, they are secluded on reservations and create no critical social problem. The state ranks second in the number of Japanese, but they are still relatively few and with the present immigration limitations there seems to be no prospect of a marked increase. The number of Chinese has actually declined since 1900 and constitutes a very small fraction of the population. Negroes have increased only very slightly in recent years and still make up only four-tenths of one per cent of the total population.

The number of foreign-born in the state has gradually declined. A study of the foreign element indicates that this state has been populated by those from northern European countries who have for years been considered the most desirable immigrants in the nation. Because of the severe restriction of immigration, problems of assimilation and Americanization will become of decreasing importance in the future.

For its increase the state has depended to a considerable extent on immigration from other states, but there is a tendency for an increasing proportion to be born in the State of Washington.

## PART III <br> FAMILY CHARACTERISTICS

## Introduction

The family characteristics of the state and nation are of fundamental importance. The size of the family usually is related closely to the standard of living. Generally speaking, areas with large families have low standards of living, whereas areas with smaller families have higher standards of living.

Extreme urbanization is believed to destroy the integrity of family life. Washington, as shown in Part I, ranks high in the proportion of people living in metropolitan centers. What effect has this had on the stability of the family-the divorce rate, the birth date, and even the marriage rate?

As was shown in the preceding section, the state has a disproportionate sex ratio. How does this relate to family problems, the marriage rate, and to natural increase in population?

Trend in Average Size of Families, United States and Washington, 1890-1930 (Fig. 26)
The average size of family has dropped in the United States between 1890 and 1930 from slightly over five per family to slightly over four per family. In the State of Washington, it has dropped from the same point to less than three and one-half per family. A change in the census division of the family between 1920 and 1930 explains in part the marked drop during that decade. (Formerly, the census included institutional and boarding house groups as families, whereas the 1930 census did not.) However, this in no way explains the radical differences that exist between the trend in the nation as compared with the State of Washington.

## Median Size of Rural Farm and Non-Farm Families, 1930

(Fig. 27)
In most of the counties the median size of rural farm families exceeds by a fraction of one member per family the size of the rural non-farm family.

In King and Pierce Counties, where Seattle and Tacoma are located, the size of farm and non-farm families tends to be about equal, no doubt because of metropolitan influence.

## WASHINGTON FAMILIES

 SMALL AND BECOMING SMALLER

Fig. 26. Trend in size of families, United States and Washington, 1890-1930.


Fig. 27. Median size of rural-farm and non-farm families by counties, 1930.

## WASHINGTON HAS MANY FAMILIES OF ONE OR TWO MEMBERS



Fig. 28. Comparative distribution of population in Washington and the United States, by size of family, 1930.

Distribution of Washington Population by Size of Family, 1930
(Fig. 28)
The State of Washington has an abnormal number of one-member families as compared to the United States. It also has an abnormal number of two-member families, although the abnormality is not quite so extreme as of one-member families. The state has a slightly greater proportion of three-member families than the nation. It has about the same proportion of four-member families as the United States. It is considerably lower in the percentage of five-, six- and seven-member families, and has approximately half as many eight- and nine-member families.

Marital Status of Population (Figs. 29 and 30)
Washington has a slightly smaller percentage of her population married than does the United States (Fig. 29). The relative number of single persons in the two groups is approximately equal. The proportion of widowed is slightly greater for the United States than for Washington, but Washington exceeds considerably in the percentage of divorced. In fact, the Washington group is relatively almost twice as large as that of the United States. The actual figure for the per cent divorced in Washington is 2.43 per cent, whereas in the United States it is 1.23 per cent.

The trend in marital status of males as compared to females in the State of Washington, 1890 to 1930, is shown in Figure 30. With regard to the trend in number of married in each class, the diagram indicates that the number of married males has increased with each census period so that for 1930 more than 50 per cent were married.

The percentage of females married has declined slightly since 1900 , although it has been approximately the same during the 30 -year period with slightly over 65 per cent of all women married.

The number of single persons has been much greater for men than for women for all periods. The number of widowed persons has been much greater in all periods for females than for males. The number

## WASHINGTON LOW ON MARRIED; HIGH ON DIVORCED



Fig. 29. Marital status of population in Washington and the United States, 1930. (*Includes a percentage of unknown too small to be shown in the figure.)


Fig. 30. Trend in marital status by sex of Washington population, $1900-1930$.

WASHINGTON LOW ON MARRIED MALES; HIGH ON MARRIED FEMALES


Fig. 31. Per cent distribution by marital status of Washington population by place of residence, 1930.
of divorced was slightly higher for females for most periods, although the divorced groups for males and females were approximately equal in 1930.

The relatively greater number of females than males married is explained to a considerable extent by the uneven sex ratio in the State of Washington, as has been previously indicated in Figure 13. There were 112.1 males per 100 females in the state in 1930 and the excess of males was progressively greater for each preceding census period.

## Marital Status by Place of Residence, Washington, 1930 (Fig. 31)

With the exception of the divorced group, no marked differences in marital status between the rural and urban populations are found. Of the urban group 2.9 per cent is divorced as compared to 1.7 per cent of the rural group. The rural group has a slightly higher per cent of single persons among the rural-farm element. The rural nonfarm group has a considerably higher proportion of widowed and divorced than has the rural farm group.

## Trends in the Birth and Death Rates, 1920-1932 (Fig. 32)

The number of births per thousand population in Washington declined from 19.8 in 1920 to 13.5 in 1932. The death rate decreased also, but only very slightly, having fallen from 11.1 in 1920 to 10.2 in 1932. The excess of births over deaths is simply the difference between the two rates. In 1920 the excess of births over deaths was 8.7. In 1932, chiefly because of the falling birth rate, the excess of births over deaths was only 3.1 per thousand.

This figure shows also the trend in births, deaths, and excess of births over deaths for the United States as compared to the State of Washington. It will be noted that the number of births per thousand population has been much higher in the United States than in Washington throughout the entire period from 1920 to 1932, having ranged approximately four to five higher for the United States. The excess of births over deaths also has been much greater in the United States.

Birth Rate for Women of Child-Bearing Age, 1900-1930 (Fig. 33)
This figure shows the average number of children under 10 per 1,000 women of child-bearing age, that is, age 20-44. This is a little more refined method of studying the birth rate, especially for Washington, since the sex ratio of the total population is unbalanced. Even this more refined comparison shows that the present birth rate for Washington is much lower than that for the nation. This has been true for each census period since 1910. The average number of children per 1,000 women of child-bearing age in 1930 was 1,025 for the nation, and for Washington it was 875 , a difference of 150 per 1,000 .

DEATH RATES INCREASE; BIRTH RATES DECREASE


Fig. 32. Trend in birth and death rates, Washington and United States, 1920-1932.


Fig. 33. Children under 10 per 1,000 women of child bearing age ( $20-44$ years), Washington, 1900-1930.

## SUMMARY, PART III

Washington is somewhat abnormal from the standpoint of family characteristics. It ranked ninth in the nation in 1928 in the number of divorces per one thousand married couples. It ranks 45 th in the median size of families, having had only 3.0 persons per family in 1930 as compared to 3.4 for the nation as a whole. It ranks high in proportion of females married and very low in proportion of males married. This is an outgrowth of the unbalanced sex ratio of 112 males to every 100 females.

The low natural increase in the state is primarily due to a low birth rate. The death rate is somewhat lower than that for the nation but the considerably lower birth rate leaves a very small natural increase. Moreover, the state has an abnormally large proportion of its population over 60 years of age. This forecasts a definitely higher death rate during the next 10 years which will further lower the natural increase. It is also possible that the birth rate will continue to fall. Should this prove to be the case, it probably will not be long before there will be an actual net decrease in population as far as births over deaths is concerned. Should this become true, the state would have to depend entirely upon immigration from other states to maintain its present population. To attract people from other states and to maintain a stationary population or to increase the population, the state would have to offer superior economic, social, climatic, and other advantages to those living in less favorable areas.

In respect to natural increase in the population, Washington is not far different from the nation, as predicted trends for the nation's population indicate a higher death rate, a lower birth rate, and, by 1960, a stationary population, later to be followed by declining population. However, these tendencies in Washington, which are in the same direction as the national tendencies, are much more marked. This state will feel them more quickly than the nation.

The high divorce rate for Washington may be explained, in part, by the unbalanced sex ratio, which leaves more room for the eternal triangle so commonly pictured in fiction and the movies. It is also a characteristic of the West, for all western states have a much higher mortality rate in marriage than states lying further east, or even in the Middle West. This is partly, no doubt, an outgrowth of custom.

The low birth rate is explained in part by the uneven sex ratio and high divorce rates. It may also be a reflection of a high standard of living, for generally people with a low standard of living have a high birth rate and people with a high standard of living have a low birth rate. We find that Washington seems to have a relatively high standard of living. It ranks sixth in the nation in the per cent of home owners, ninth in the number of farm homes having running
water, eighth in the farm homes wired for electricity, twentieth in the number of farm homes having telephones, twenty-second in the percentage of homes having radios. In all of these things, then, it is above the national average and in many of them ranks near the top.

As civilization becomes more complicated, people tend to sacrifice family life and offspring for luxuries and conveniences. In an urbanindustrialized society this is especially true, for the accumulation of luxuries consumes the income that would be necessary for the rearing of children.

This state, as has been pointed out in Part I, is fairly typical of the nation in urbanization. However, it exceeds the national average in the proportion of its people living in cities of 100,000 or more population. More than one-third of the people of the State of Washington live in such cities. Considered from the standpoint of large urban communities this state ranks tenth in the nation, i.e. from the standpoint of extreme urbanization. This fact probably explains to a considerable degree the family characteristics which are evident in the population. However, there are other characteristics with regard to marriage and the birth rate for which there seems to be no such logical explanation.

Even the rural farm population in the state has an abnormally low birth rate. This is an exception to national trends and entirely out of line with what one would normally expect on the basis of studies in other areas. One possible explanation suggests itself, but it must be considered as entirely hypothetical and undemonstrated. In the eastern part of the state farming is a large-scale, seasonal enterprise. This is especially true in the wheat region. Families have considerable leisure and participate rather extensively in the luxuries and conveniences of urban life. This creates a taste for urban standards of life and leads to the adoption of urban family mores. In the western part of the state a large part of the rural population live on the fringe of urban centers where subsistence farming is characteristic. These people seem, so far as their psychological and behavior trends are concerned, more characteristically urban than rural as people living in metropolitan regions usually do.

## PART IV

## OCCUPATIONS AND EMPLOYMENT

## Introduction

Pioneer communities are noted for their industry and productive energy. "Man was born to hustle" seems to have been the motto of most frontier settlements. To some extent the State of Washington still manifests these characteristics in that a relatively greater number of the population are employed here than in the nation.

Some interesting trends are exhibited in the relative amount of employment among men and women. The proportion of men employed over 16 years of age has declined for each decade. The proportion of women employed for each decade has increased.

Per Cent of Males and Females Gainfully Employed, 1870-1930
(Fig. 34)
Employment rates in Washington for those 10 years of age and over have fluctuated between 50 per cent and 60 per cent between 1870 and 1930. The high point in percentage employed was reached in 1890 when 60 per cent were employed.

WASHINGTON HAS A HIGHER PERCENTAGE GAINFULLY EMPLOYED THAN NATION


Fig. 34. Trend in per cent of males and females gainfully employed in Washington as compared to the United States, 1870-1930.

The trend in the percentage of males employed is similar to the trend in percentage of the total population employed, although in 1930 the proportion of males employed dropped more rapidly than the percentage of the total population, because of the fact that in 1930 a greater percentage of females were employed than at any period in the history of the state.

Males employed ranged from about 82 per cent in 1870 to slightly over 85 per cent in 1890 and dropped to approximately 77 per cent in 1930. The percentage of females employed increased from four per cent in 1870 to a high point of 20 per cent in 1930.

The percentage of all males 10 years of age or over gainfully employed in Washington has been somewhat greater than for the United States for each census period although the difference was not quite so great for 1930 as for former periods. In 1870 less than 75 per cent of all males of 10 years of age or over were employed in the United States whereas in Washington approximately 82 per cent were employed. In 1930 approximately 76 per cent of males were employed in the United States whereas in Washington 77 per cent were gainfully employed.

The trend line for the total number of employed also indicates a slightly greater number employed in Washington. In 1930, of the total population of the United States, 49.5 per cent were employed. Similar figures for Washington indicate that 50.6 per cent were employed.

Trend in Employment Rate, Males and Females, 1890-1930 (Fig. 35)
In the State of Washington the percentage of males employed has consistently decreased whereas the percentage of females has increased from one to four per cent each decade.

In 1890, 85.6 per cent of all males and 11 per cent of the females 10 years of age or over were gainfully employed. Comparable figures for 1930 show 77 per cent of the males and 20.6 per cent of the females gainfully employed.

Per Cent of Total Gainful Workers, Male and Female in Washington by Decades, 1870-1930 (Fig. 36)

In $1870,97.58$ per cent of all gainful workers were males, whereas 2.42 per cent were females. There has been a consistent increase in the proportion of females in the gainfully employed portion of the population for each decade up to 1930. In 1930, 19.06 per cent of all those gainfully employed were females whereas 80.94 per cent were males.

Figure 36 is particularly significant when compared with Figure 35, which indicates that from decade to decade a smaller per cent of the males in the state 10 years of age and over have been employed

MALES EMPLOYED DECREASE; FEMALES EMPLOYED INCREASE
MALES
FEMALES


1920


Fig. 35. Per cent males and females gainfully employed, 1890-1930. (Black-gainfully employed)
and more of the females have been working. Figure 36 indicates further that of the total working population a larger percentage have been females with each passing decade. For example, in 1930, 20.6 per cent of females 10 years of age and over in the State of Washington were gainfully employed (Fig. 35). In 1930, 19.06 per cent of the working population were females (Fig. 36). The trends shown by comparing the graphs in Figures 35 and 36 seem to indicate that as the percentage of females employed increases the percentage of males unemployed also increases. ${ }^{1}$

FEMALE WORKERS REPLACE MALE WORKERS


Fig. 36. Per cent of gainfully employed in Washington by sex, 1870-1930.

## Working Women by Marital Status, 1930 (Fig. 37)

The percentage of single women gainfully employed is somewhat less for Washington than for the United States. On the other hand, the per cent of widowed and divorced women working is relatively higher than in the United States. The per cent of married women working is slightly higher for Washington than for the United States.

Per Cent of Working Women Who Are Married, Washington and the United States, 1930 (Fig. 38)
A little over five per cent more of the working women are married in Washington than in the United States and a little over four per cent more of them are widowed and divorced in the state than in the nation, with the result that single women and women of unknown status represent over nine per cent less of the working women in Washington than in the United States.

[^4]WASHINGTON HIGH IN PER CENT
MARRIED, WIDOWED, AND DIVORCED WOMEN WORKING WASHINGTON UNITED STATES


Fig. 37. Per cent of women working and not working by marital classes, Washington, 1930.

## PART V.

## EDUCATIONAL CHARACTERISTICS

## Introduction

Part V. presents the outstanding statistical aspects of literacy and educational opportunity within the state. It summarizes trends in education and illiteracy in Washington, ranking the state among other states in the Union.

Trend in Illiteracy Rates and School Attendance, 1880-1930 (Fig. 42)
The comparison between Washington and the nation for each period, 1880 to 1930, with regard to illiteracy and school attendance is very favorable to Washington. In 1880 seven per cent of the people in this state were illiterate, whereas approximately 17 per cent of the population in the United States was illiterate. The rate of illiteracy declined in both the United States and the State of Washington until in 1930 Washington had approximately one per cent illiterate and the United States 4.3 per cent.

Washington, since 1900 , has ranked high in the percentage of children five to 20 years of age in school. In fact, during each decade the state has had a much higher per cent than the United States. The greatest difference was in 1900 when slightly over 50 per cent of the nation's children were in school and over 65 per cent of the state's children were in school. In 1930, Washington exceeded the nation by more than 10 per cent in number in school.

## Per Cent of Children in School, 1930 (Fig. 43)

Washington ranked sixth on the list in percentage of children between the ages of five and 20 attending school, with 75.7 per cent of all population in this age group attending school in 1930.

The average for the United States for the same year was 69.67 per cent. This state is classed with high ranking states, all of which are found in the northern part of the United States. Southern states are at the bottom of the list, South Carolina ranking lowest with only 60.1 per cent of children of school age in school.

## Illiteracy Among the States, 1930 (Fig. 44)

The Census classifies one as illiterate if he is unable to read and write in any language. Washington ranks next to the top among the states in having a low percentage of illiterate persons. Iowa ranks first, having less than one per cent of her population illiterate. Of Washington population one per cent is illiterate. The average per cent illiterate for the United States is 4.3 per cent. South Carolina is at the bottom of the list, with almost 15 per cent of her population unable to read or write.


Fig. 42. Washington compared to United States, per cent illiterate and per cent of those five to 20 years in school, 1880-1930.

WASHINGTON SIXTH IN SCHOOL ATTENDANCE


Fig. 43. Per cent children ages five to 20 , inclusive, in school, all states, 1930.


Fig. 44. States ranked according to per cent of population illiterate, 1930.

## PART VI. IMPLICATIONS OF WASHINGTON POPULATION TRENDS

The state in the future must depend largely upon immigration for population increase if birth rates continue to decline and death rates increase as they are expected to do. Extensive development of agriculture in irrigated areas developed through reclamation projects would increase the farm population. Such increase would increase the birth rate somewhat and in this way would tend to correct in part the low natural increase, assuming that rural birth rates continue to be higher than urban birth rates as they have been in the past.

Recent trends indicate a definitely declining population in the younger age groups. The number below five years of age is decreasing. This decrease will be felt in the older childhood and youth groups soon. The numbers enrolled in elementary schools, consequently, will decrease so that precaution should be taken to avoid the over-expansion of elementary school facilities on the assumption that this group will increase as it did consistently until recent years. The effect of the decline in the younger age groups may not affect high school and college enrollments for some time to come. It depends largely upon whether or not an increasing percentage of young people find it possible to go to high school and college.

Washington has an abnormally high percentage of people in the old age groups as compared to most states in the Union and as compared to the national average. Granting equal economic conditions, Washington can expect to have a heavier pension burden in the future than most other states. One study made of present conditions indicates that the aged in Washington are dependent to a larger degree than those in the nation, which will increase the pension burden even more in this state. ${ }^{1}$

The relatively high proportion of people in the older age group in this state will mean a higher death rate during the next few years. In the past the state's growth has been largely due to a migration into the state heavier than migration from the state. The natural increase, that is, increase of births over deaths, has been relatively smaller than in the nation. Future population growth depends largely upon the ability of the state to attract a greater number of people through immigration than leave for other areas. It has been able to do this in the past. Whether it does so in the future probably depends upon a number of factors, chief of which no doubt will be economic opportunities offered. If the state can offer superior agricultural advantages through its reclamation projects in spite of the distance from market, these advantages will prove an important drawing card. If power projects now being developed can be utilized for the ex-

[^5]pansion of industry, this would also be a deciding factor in increasing immigration. ${ }^{1}$

Climatic conditions are another factor of decided importance in determining immigration. Washington has a marketable climate. It is probably surpassed in this respect by only one or two states. Because of these variable conditions, predictions as to immigration increase in this state are most difficult and necessarily must involve a higher degree of speculation than similar predictions for the nation or for certain other states where gigantic projects for reclamation are not under way.

Certain areas of the state have lost population. Other areas have steadily increased. The decreasing areas seem to have decreased in part because economic resources have been exhausted or may never have existed to the extent that people believed them to exist. ${ }^{2}$ This suggests that the settlement of immigrants should be placed on a more scientific basis than it has been in the past. There is a definite need for careful analysis of the economic opportunities of areas in which immigrants contemplate settlement. A classification of lands and perhaps state control of the use to which lands can be put are of fundamental importance. Long-time planning of all resources is essential if the state is to avoid the human tradegy that always goes with the settlement of immigrants in unfavorable areas. Washington has an unusual opportunity to do something constructive in this field, because her varied resources, during the past few years, have attracted settlers from other aeas that have felt much more severely the effects of the drought-depression period of the thirties.

Data on occupations indicate very clearly that agriculture has declined in importance as a vocational outlet. Only approximately 20 per cent of the population of this state is now engaged in agricultural pursuits. The idea that all farm youth should be prepared to return to the farm is definitely outmoded. Many of the youth will leave the farm when they reach productive ages of life and contribute their share to the energy of the great cities. This is inevitable under existing conditions in social organization, for the rural birth rate is higher than the demand for agricultural workers. Schools training rural youth should, therefore, not only train for agriculture but for vocational outlets in urban life. It is perfectly reasonable, also, to assume that educational opportunities should be equalized throughout the state, even though part of the expense should fall on urban areas,
${ }^{1}$ These problems are analyzed extensively in the forthcoming report of the Columbia Valley Committee, prepared by the Pacific Northwest Regional Planning Commission to be published soon by the National Resources Board.
${ }^{2}$ In many counties, the population is decreasing because of the growth of large-scale machine farming.
for the city has been getting, and doubtless will continue to get, a share of youth trained in rural communities. ${ }^{1}$

Increased employment of women apparently has reduced the employment of men. Present indications are that in this state one-third of the women working are married. This means that they either are sharing in the economic burden of the household or are bearing it entirely. In American agricultural society it has been assumed, at least among the American born, that the weight of economic support lies largely upon the husband. Extreme urbanization and industrialization seem to be undermining this philosophy. At any rate more and more urban vocational opportunities are open to women.
${ }^{1}$ For further discussion of this point see O. E. Baker and T. B. Manny, Population Trends and the National Welfare; O. E. Baker, Population and Occupational Shifts; and Fred R. Yoder and A. A. Smick, Migration of Farm Population and Flow of Farm Wealth.

## APPENDIX

## WASHINGTON AMONG THE STATES

The previous sections of this bulletin have dealt with population trends in the State of Washington, and in some cases comparisons have been made with similar data for the United States. The state is ranked among the forty-eight states and the District of Columbia with regard to certain population characteristics and related socio-economic factors. Data for 1930 are used throughout unless otherwise indicated. In each case, when determining the rank of Washington, the states are ranked ahead of Washington which have a larger number or percentage of individuals or cases in the category in question. For example: Washington ranks 30 th in total population. This means that 29 states had more population in 1930 than Washington.

Washington's rank among the states in:

1. GENERAL POPULATION FEATURES

30th in total population
19th in land area in square miles
35th in population per square mile
14th in per cent urban population
36th in per cent rural population
34th in per cent rural-farm population
22nd in per cent rural non-farm population
2. RACIAL CHARACTERISTICS

37th in number of Negroes
29th in number of Mexicans
9th in number of Indians
6 th in number of Chinese
2nd in number of Japanese
2nd in number of Filipinos
3. NATIVITY

24th in percentage of native white in population of state 10th in percentage of foreign born in population of state 45th in per cent of population born in state of residence
4. SEX RATIO

6th in number of males per 100 females

## 5. AGE GROUPS

46th in per cent of persons under five years of age
19th in per cent of persons 65 years of age and over

## 6. MARITAL STATUS

43rd in per cent of males 15 years of age and over married 12 th in per cent of males 15 years of age and over single 27 th in per cent of males 15 years of age and over widowed 4th in per cent of males 15 years of age and over divorced 11 th in per cent of females 15 years of age and over married 41 st in per cent of females 15 years of age and over single 35 th in per cent of females 15 years of age and over widowed 4th in per cent of females 15 years of age and over divorced
7. DIVORCE

9th in number of divorces per 1000 marriages-1928
12th in number of marriages per 1000 population-1928
7 th in number of divorces per 1000 population-1928
8. SCHOOL ATTENDANCE

6th in per cent of children five to 20 attending school
9. ILLITERACY

48th in per cent of population illiterate or 2 nd in proportion literate
10. PRODUCTION OF NOTABLES

48th in number of persons born in Washington listed in "Who's Who in America"-1930-1931 (Rates per 100,000 of 1930 population.)
20th in number of persons residing in Washington listed in "Who's Who" (Rates per 100,000 of 1930 population.)
11. OCCUPATIONS

16th in per cent of males over 10 years of age gainfully employed
22 nd in per cent of females over 10 years of age gainfully employed
19th in per cent of married women 15 years of age and over gainfully employed
21 st in per cent of single women 15 years of age and over gainfully employed
15 th in per cent of widowed and divorced women 15 years of age and over gainfully employed
12. UNEMPLOYMENT

11th in per cent of gainful workers out of a job, able to work, and looking for a job in 1930
13. FAMILY STATISTICS

45th in median size of family
22 nd in per cent of families having radios
6th in percentage of homes owned

## 14. AGRICULTURE

33rd in per cent farm population in total population
29th in number of farms

30th in number of acres in farms
40th in per cent of total land area in farms
8th in comparative annual cash farm income per farm
21 st in value of farm lands and buildings
19th in value of farm implements and machinery
17 th in average value of land and buildings per farm
19th in average value of land and buildings per acre
32nd in percentage of owned farms free from mortgage
20th in per cent of all farms having telephones
9th in per cent of farms having water piped into dwelling house
8th in per cent of farms reporting dwelling house lighted by electricity
10th in average per farm sale through farmers' cooperative organizations
8th in average per farm purchased through farmers' cooperative organizations
26th in value of all crops in 1929
15. MANUFACTURES

16th in number of manufacturing establishments-1929
18th in value of manufactured products-1929
21st in number of wage earners in manufacturing industries-1929
16. MINING

31st in number of mining enterprises-1929
30th in value of mined products- 1928
17. CONSTRUCTION BUSINESS

17th in number of construction business establishments-1929
17th in total value of construction business-1929
18. HOTELS

4th in number of hotels-1929
11th in total receipts by hotels- 1929
19. RETAIL DISTRIBUTION

25th in number of retail stores-1929
17th in total net sales-1929
12th in per cent of total sales by local chain stores-1929
16th in per cent of total sales by sectional chains-1929
35th in per cent total sales by national chains
20. ASSESSED VALUATION OF PROPERTY SUBJECT TO GENERAL PROPERTY TAX-1927

30th in assessed valuation of property subject to general property tax-1927
21. WHOLESALE DISTRIBUTION

18th in number of wholesale establishments
11th in net sales of wholesale establishments-1929

Date Due




[^0]:    ${ }^{1}$ In cooperation with the State Committee on the Relation of Electricity to Agriculture.
    ${ }^{3}$ In cooperation with the United States Department of Agriculture.
    ${ }^{3}$ Regional Director, Conservator, Soil Conservation Service, U. S. Dept. of Agriculture.

[^1]:    ${ }^{1}$ According to a study by Allan R. Potter for the State Department of Public Welfare the state now has a higher per cent of aged than the nation and also a higher proportion of the aged in the state are eligible for pensions than in the nation. See Cost of Old Age Pensions in the State of Washington, Washington Emergency Relief Administration, Research and Statistics, Monograph No. 2, October 1934.

[^2]:    ${ }^{1}$ The United States census presents a five year interval for those under five years of age; other intervals are for 10 years. The heavy line for the under five group indicates the percentage in this class. The dotted line, equal to twice the actual per cent, is presented to make this part of the figure comparable to the 10 point class intervals above five years. All the discussion is based on the block within the dotted lines.

[^3]:    ${ }^{1}$ Pyramids have been prepared for each county and those interested in particular counties should address the Rural Sociology Research Laboratory, Pullman.

[^4]:    ${ }^{1}$ The U.S. Census of Unemployment, 1930 showed 33 per cent of male gainful workers unemployed.

[^5]:    ${ }^{1}$ Potter, op. cit.

